

## ABSTRACT

A detachable cartridge unit and an auxiliary unit combined forms a functional component for a data processing system. The cartridge unit is configured to receive a variety of auxiliary units in order to form different functional components and perform different functions. The circuit board of the cartridge unit contains circuits and components common to each functional component. The auxiliary unit contains components and circuits unique to the function that the auxiliary unit represents. The cartridge unit comprises a circuit board, a housing containing the circuit board, a first connector coupled to the circuit board for connecting to a data processing system, a second connector coupled to the circuit board, and a grip movably connected to the housing with a hinge. The auxiliary unit includes an auxiliary circuit board, an auxiliary connector coupled to the auxiliary circuit board for detachably connecting to the second connector, an auxiliary housing containing the auxiliary circuit board, a guide for guiding the auxiliary connector to connect to the second connector via a predetermined path, and an auxiliary grip movably connected to the auxiliary housing with a hinge.